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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,159	03/30/2001	Herbert Barthel	Q063371	4266
7590	05/14/2004		EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037-3213			BUTLER, DENNIS	
			ART UNIT	PAPER NUMBER
			2115	8
DATE MAILED: 05/14/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,159	BARTHEL ET AL.	
	Examiner	Art Unit	
	Dennis M. Butler	2115	

~ The MAILING DATE of this communication appears on the cover sheet with the correspondence address ~

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 March 2001.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 9-14 is/are allowed.
 6) Claim(s) 1-8 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 6

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

1. This action is in response to the application filed on March 30, 2001. Claims 1-14 are pending. This application is a continuation of PCT/DE99/02940 that was filed on September 14, 1999.

2. Applicants have claimed Foreign Priority based on German application 19845025.7 filed on September 30, 1998. Applicants have submitted a certified copy of European Patent Office application 98114800.0 filed on August 6, 1998. The submitted document is not the correct priority document. Applicants must submit a certified copy of German application 19845025.7 or a copy of the certified copy of the document submitted in the PCT application in order to perfect the claim for priority. See MPEP 1893.03 (C).

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "the higher-level unit" lacks proper antecedent basis because the previous phrase recites at least one higher-level unit.

Regarding claim 1, the phrase "said actuators" lacks proper antecedent basis.

Claims 2-8 are rejected because they incorporate the deficiencies of claim 1.

Regarding claims 2 and 3, the phrase "the process signal" lacks proper antecedent basis because the previous phrase recites at least one process signal.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Schreder et al., U. S. Patent 6,317,638.

Per claim 1:

A) Schreder et al teach the following claimed items:

1. a device with elements 121, 112 and 122 of figure 1;
2. input and output functionality with Input/Output 122 of figure 1 and the corresponding connections and ports and at column 3, lines 47-52;
3. processing functionality with process controllers 121, with figure 2, at column 3, lines 40-47 and at column 4, lines 10-29;
4. a plurality of logical links executed exclusively by the processing functionality with the automatic handler invocation logic at column 6, lines 15-33 and the abnormal handler sequencing support logic at column 7, lines 28-38 and at column 8, lines 35-45;

5. a higher level unit with server 110 or workstations 140 of figure 1 and at column 3, lines 40-47 and 60-65;
6. a plurality of components connected to the device with process sensors and actuators 130 of figure 1 and at column 3, lines 53-59. Schreder et al's system inherently includes a response time determined by a cycle time of the higher-level unit and a signal cycle time over the bus. Both the higher-level unit and the bus require time to perform their functions of processing commands and data and transmitting signals. The combination of the processing time and the transmitting time is the response time. Schreder et al's system inherently makes the results of the logical links available after the expiration of a time interval that is shorter than the response time because the time interval includes only the processing time of the processing functionality executing the logical links. The time interval does not include the transmit time of the bus and is therefore shorter than the response time.

Per claims 2-6:

Schreder describes a processing signal is a process influencing signal and a monitoring signal at column 3, lines 60-65. Schreder describes at least one sensor and at least one actuator with Process Sensors and Actuators 130 of figure 1 and at column 3, lines 53-59. Schreder describes components that control or monitor a safety parameter at column 7, lines 28-38 and at column 8, lines 35-45.

7. Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfhard Lawrenz, European Patent Document 0 540 903 A1 (cited by applicant).

Per claim 1:

A) Lawrenz teaches the following claimed items:

1. a device with NiPC of figures 1, 2 and 6;
2. input and output functionality with ScBB of figures 3, 4 and 6 and the corresponding connections and ports;
3. processing functionality with microprocessor 2 of figures 1 and 2;
4. a plurality of logical links executed exclusively by the processing functionality with the software routines executed by microprocessor 2 of figures 1 and 2;
5. a higher level unit with computer 30 and interface 31;
6. a plurality of components connected to the device with the sensors and actuators of figure 6. Lawrenz's system inherently includes a response time determined by a cycle time of the higher-level unit and a signal cycle time over the bus. Both the higher-level unit and the bus require time to perform their functions of processing commands and data and transmitting signals. The combination of the processing time and the transmitting time is the response time. Lawrenz's system inherently makes the results of the logical links available after the expiration of a time interval that is shorter than the response time because the time interval includes only the processing time of the processing

functionality executing the logical links. The time interval does not include the transmit time of the bus and is therefore shorter than the response time.

Per claims 4 and 5:

Lawrenz describes at least one sensor and at least one actuator with the Sensors and Actuators of figure 6.

8. Claims 9-14 are allowable over the art of record because the art of record does not teach or suggest the combination of elements recited in independent claims 9 and 11.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis M. Butler whose telephone number is 703-305-9663. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Dennis M. Butler

Dennis M. Butler
Primary Examiner
Art Unit 2115